

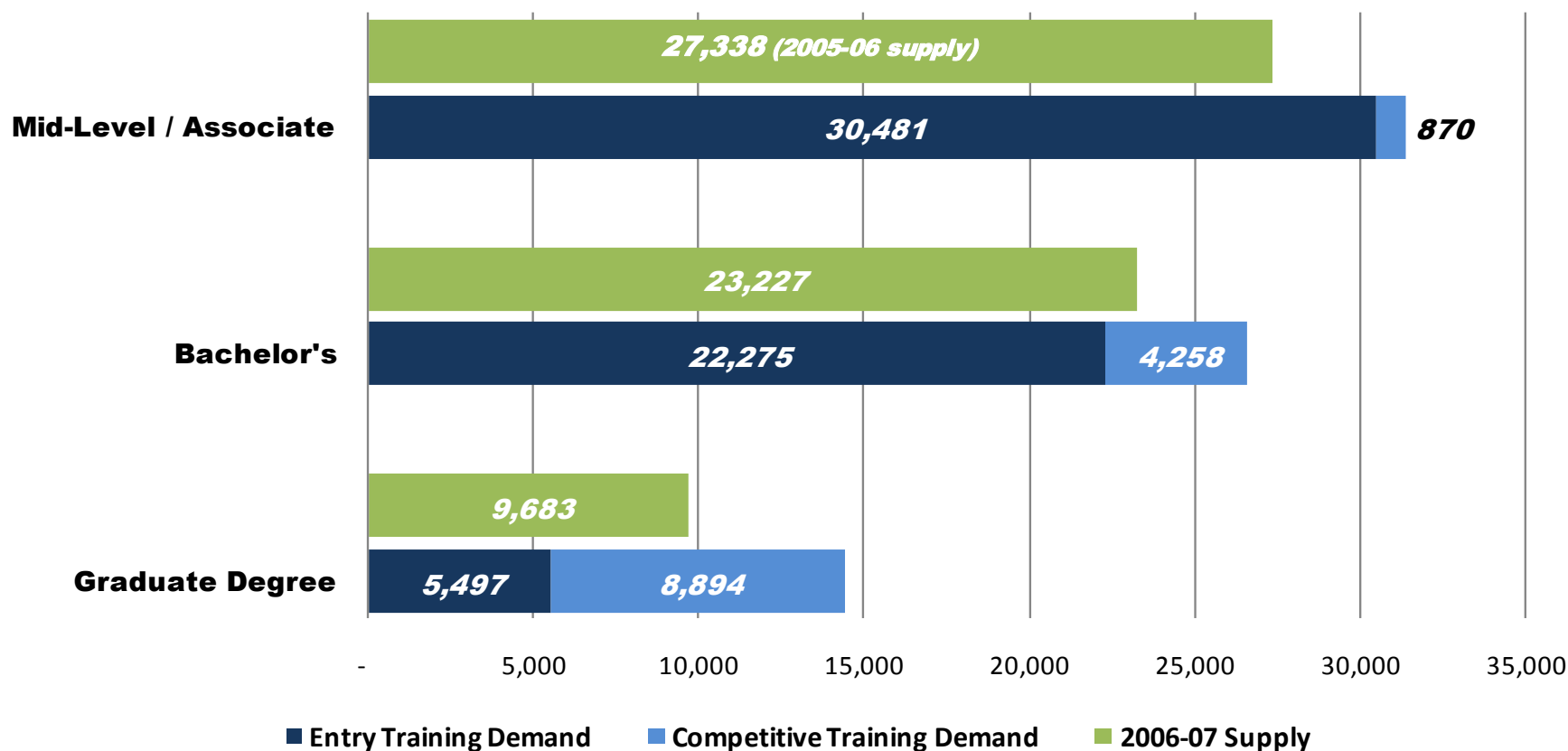
Employer Demand Joint Report 2009 Update of *"A Skilled and Educated Workforce"*

Higher Education Coordinating Board

February 17, 2009
State Investment Board Room
Olympia, Washington

Supply and Employer Demand by Education Level *Mid-Level, Baccalaureate, Graduate*

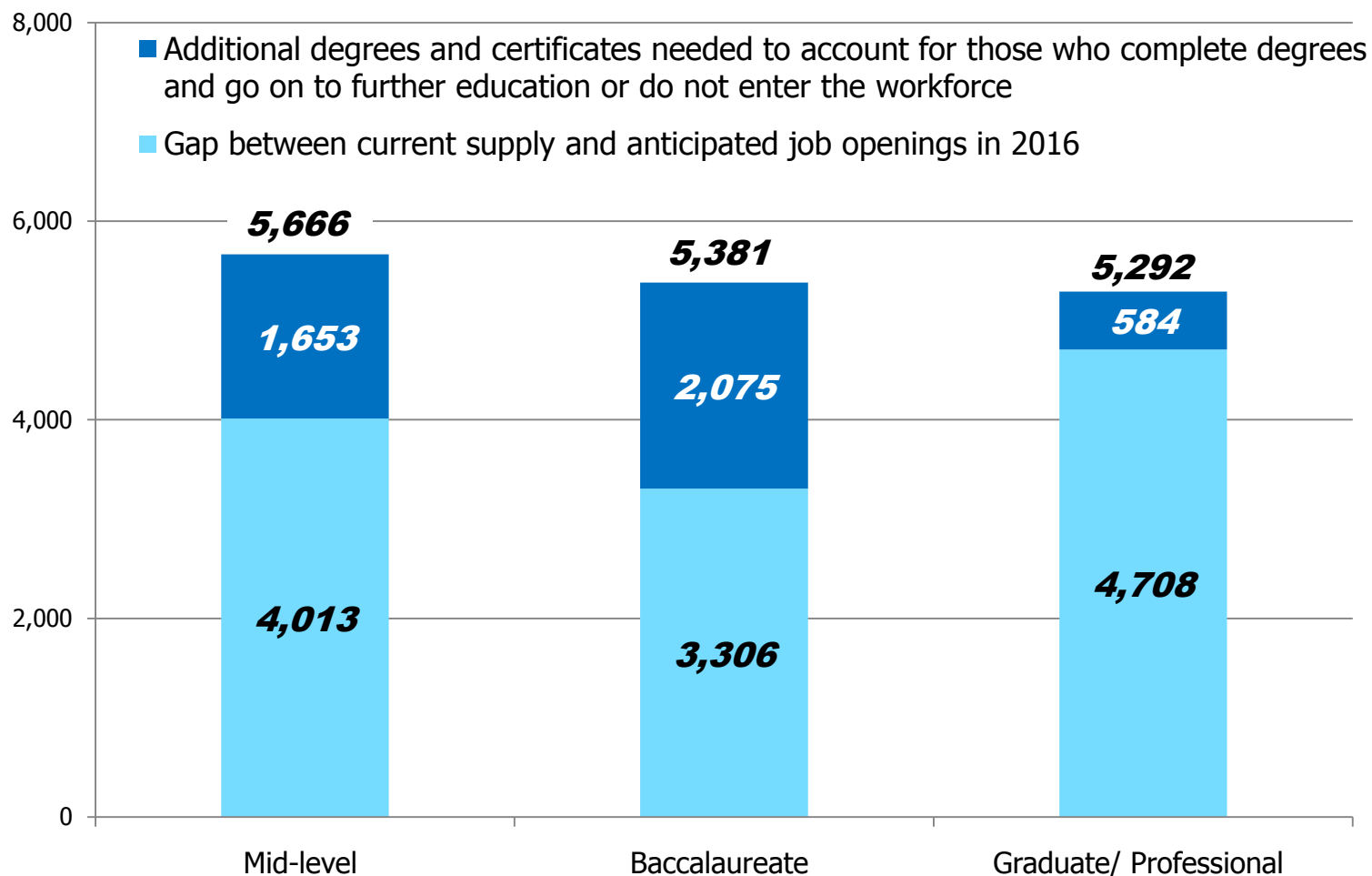
Annual Supply and Demand of Workers By Education Level
2006-07 Supply and Annual Average Openings 2012-2016



Note: Mid-Level includes postsecondary education leading to an apprenticeship, one-year certificate, or Associate Degree.

Source: HECB, WTECB, SBTC joint analysis of June 2008 Washington ESD long-term employment forecast; Bureau of Labor Statistics Training levels; 2000 Census PUMS data.

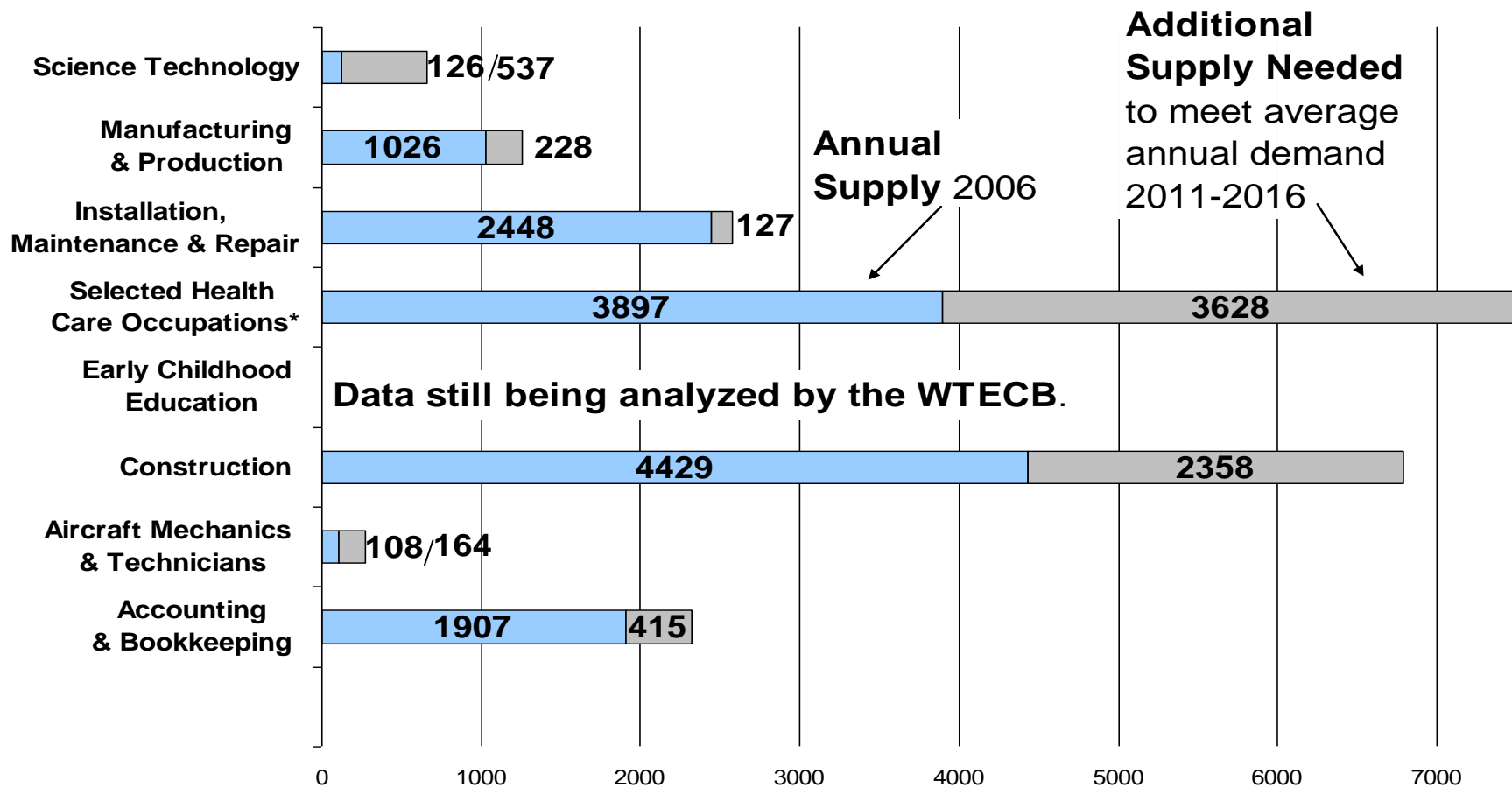
Degree Gaps by Education Level Mid-Level, Baccalaureate, Graduate



Source: HECB, SBCTC, WTECB Joint Analysis. "A Skilled and Educated Workforce " 2009 update forthcoming.

**Where are the gaps, and are
we making progress?**

High Demand Occupations Mid-Level



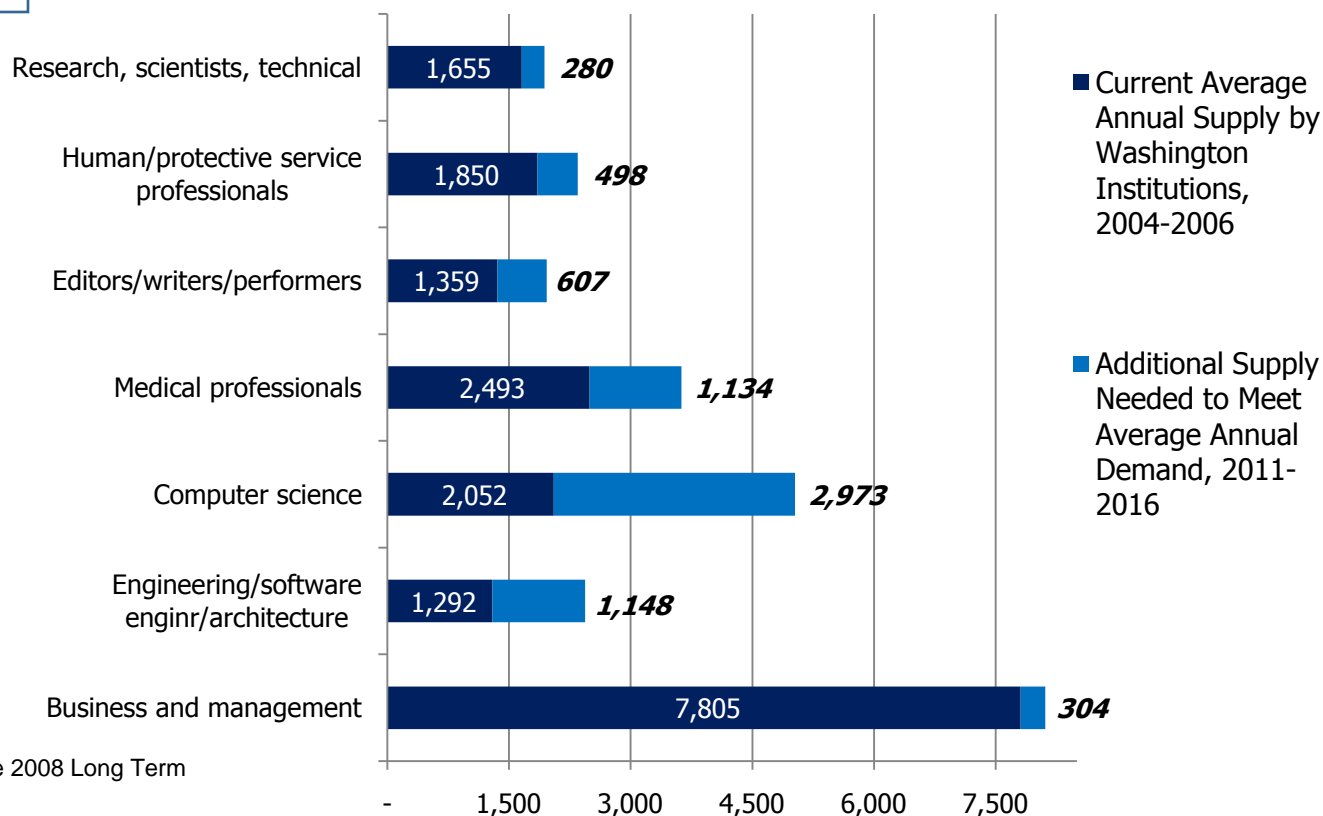
*Data from 2007 The Health Care Shortage Task Force Report

High Demand Occupations Baccalaureate and Above

High-demand
occupations are:

- STEM Occupations
- Health Sciences

Comparison of Current Supply with Future Demand for Baccalaureate and Graduate Degrees



Source: Openings: Washington ESD June 2008 Long Term Employment Forecast

Supply: HECB Analysis of IPEDS data. Represents 3 Year Annual Average Degree Awards 2006-2008 adjusted for entry into the labor market.

High Demand Occupations

Closing Gaps: Baccalaureate and Above

- Between 2006 and 2008, supply gaps grew in every area except medical professionals and human/protective service professionals.
- In many areas, growth in forecast demand outpaced growth in supply over the last two years.

Estimates of Available Current Supply and Future Demand by Occupational Cluster

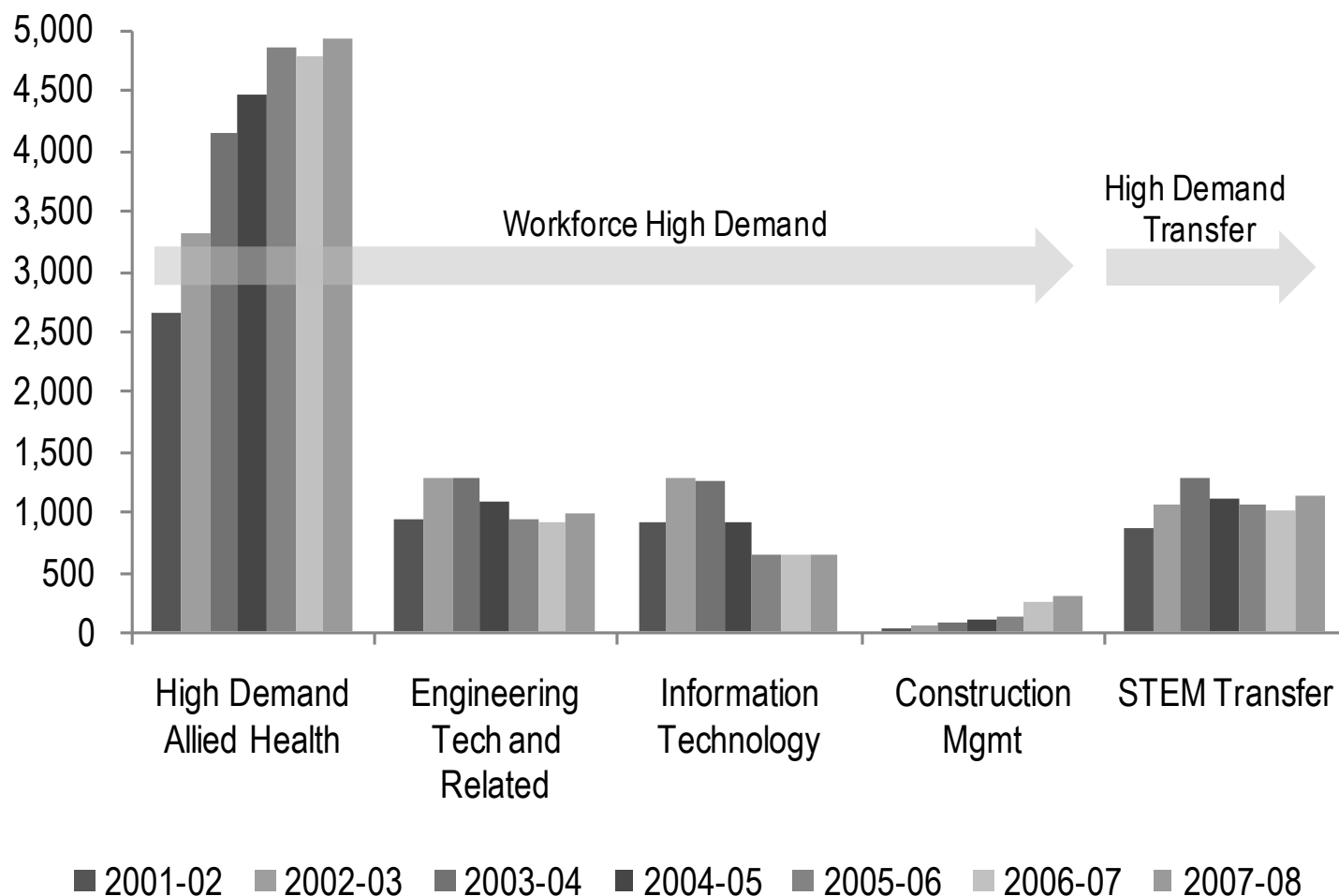
Comparison between 2006 and 2008 analyses

Baccalaureate and Above Occupational Clusters	Gap (Current supply as a percentage of future demand)		Percentage Change in Estimate of Current Supply Between Analyses	Percentage Change in Estimate of Future Demand Between Analyses
	2006	2008		
Business and management	116%	96%	7%	28%
Engineering/software engineer/architecture	67%	53%	1%	28%
Computer science	56%	41%	3%	41%
Medical professionals	65%	69%	16%	9%
Editors/writers/performers	75%	69%	6%	15%
Human/protective service professionals	75%	79%	8%	2%
Research, scientists, technical	89%	86%	9%	13%

Note: The supply estimates are based on average annual supply for 2001-2004 for the 2006 analysis and 2004-2006 for the 2008 analysis. The future demand estimates were based on annual average forecast demand for 2007-2012 in the 2006 analysis and 2011-2016 in the 2008 analysis.

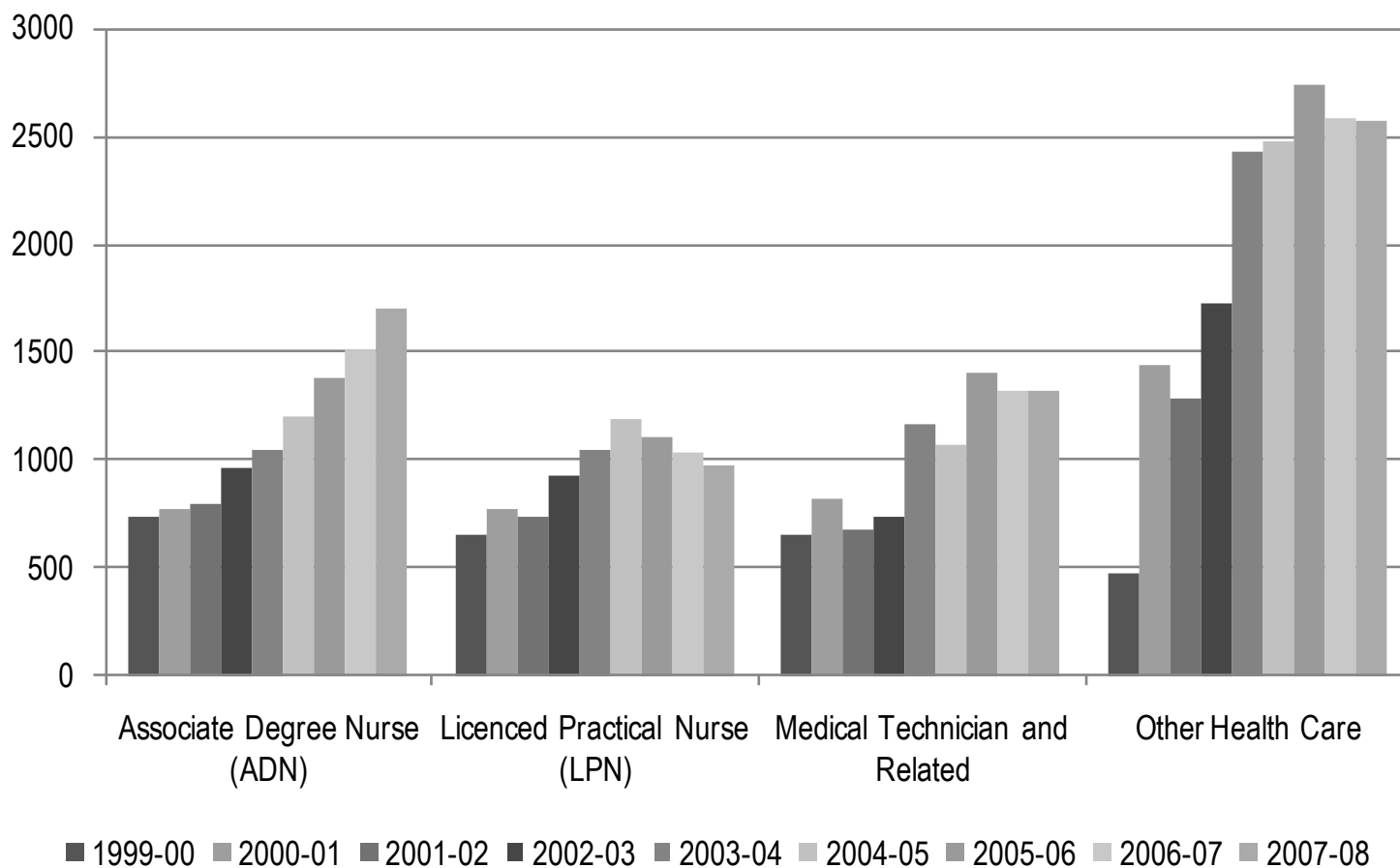
High Demand Degree Production Mid-Level Degrees and Certificates, 2000-2007

CTC High Demand Degrees and Certificates

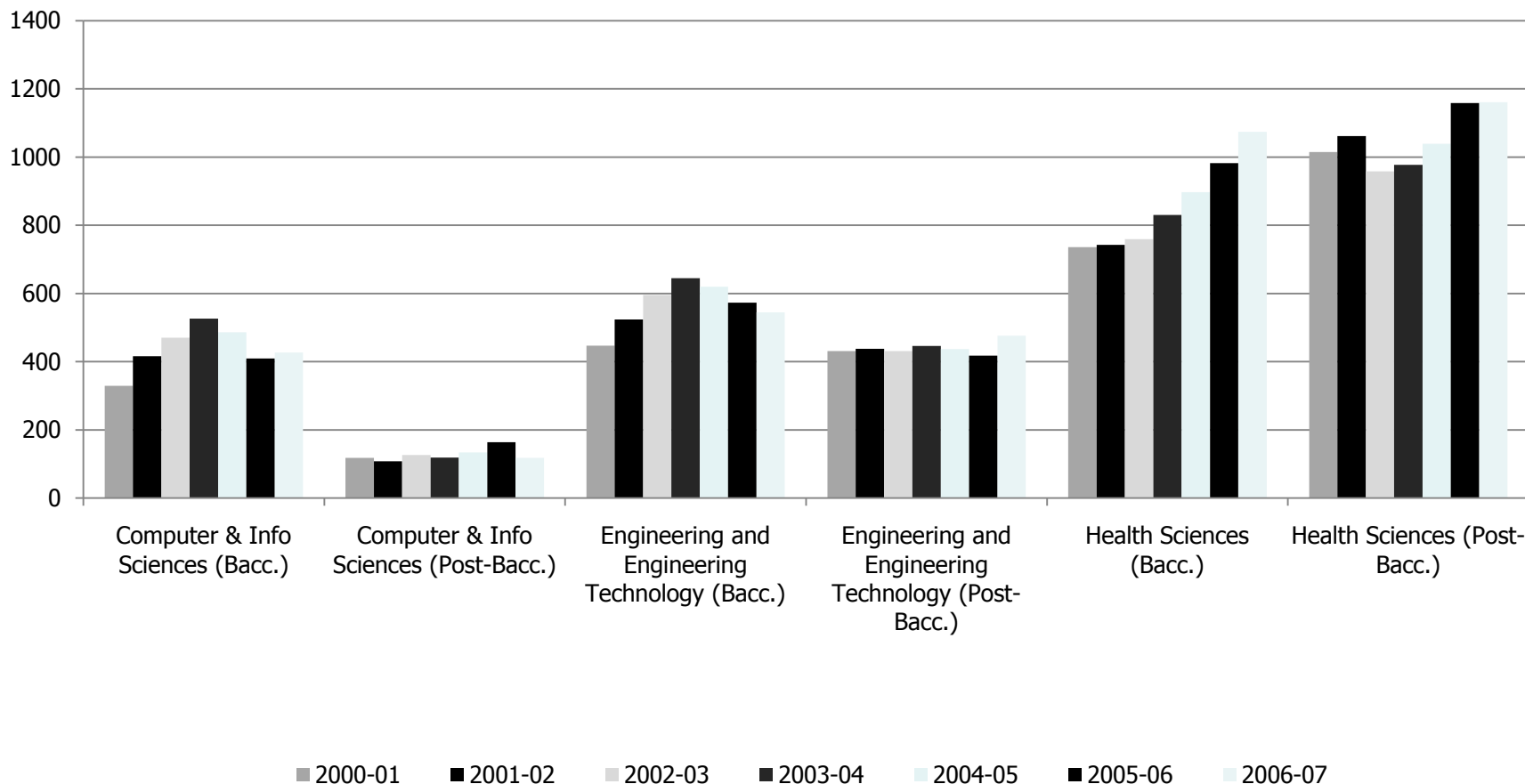


Allied Health Degree Production Mid-Level Degrees and Certificates, 1999-2007

CTC Degrees and Certificates in High Demand Allied Health



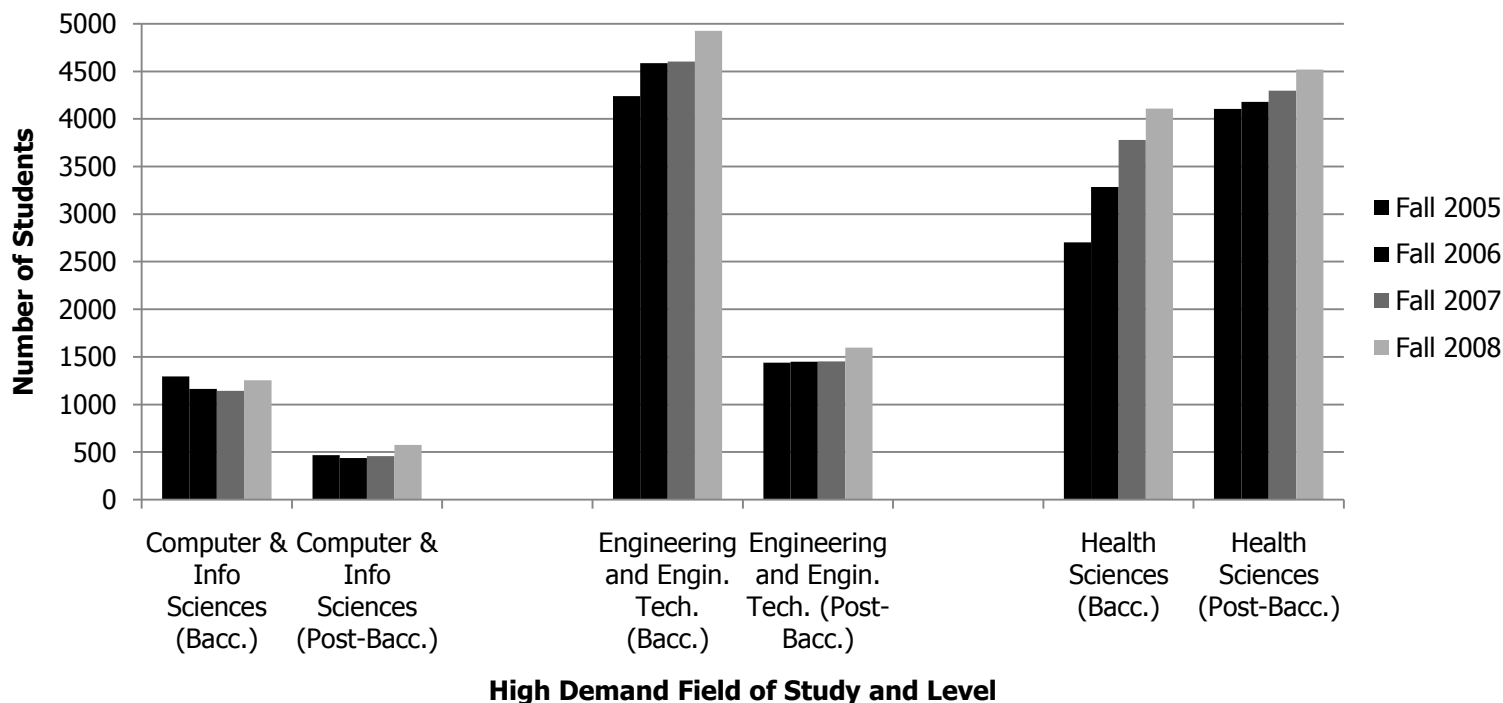
High Demand Degree Production Bachelor's and Higher, 2000-2007



Students Majoring in High Demand Fields Public 4-Year Institutions, 2000-2007

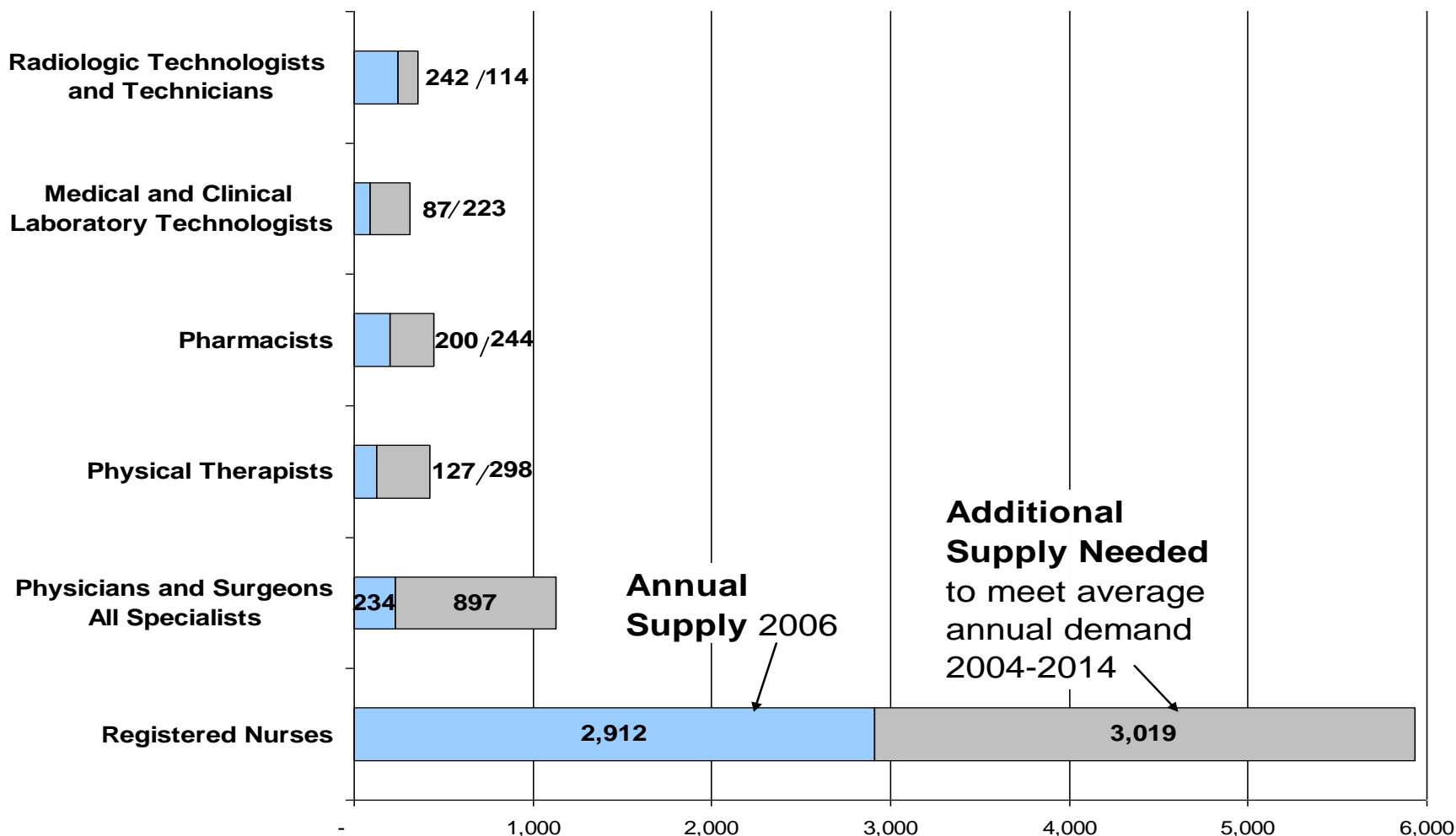
State High Demand
Funding in FY07-09
is beginning to show
results.

**Number of Students at Washington Public 4-Year
Institutions Majoring in High Demand Fields of Study**
Fall 2005-Fall 2008



Source: PCHEES (Office of
Financial Management)

Despite Growth Shortages Persist in Healthcare Occupations

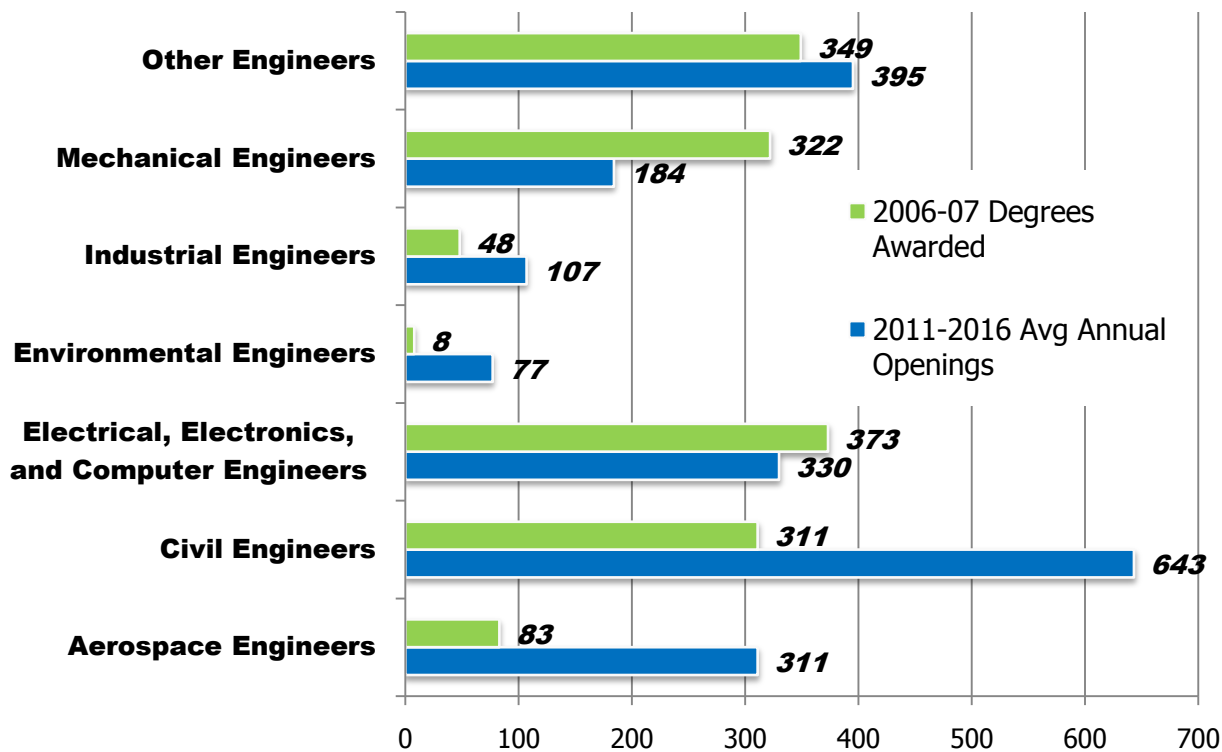


Source: Workforce Training and Education Coordinating Board

Demand for Engineers Varies by Specialty Area

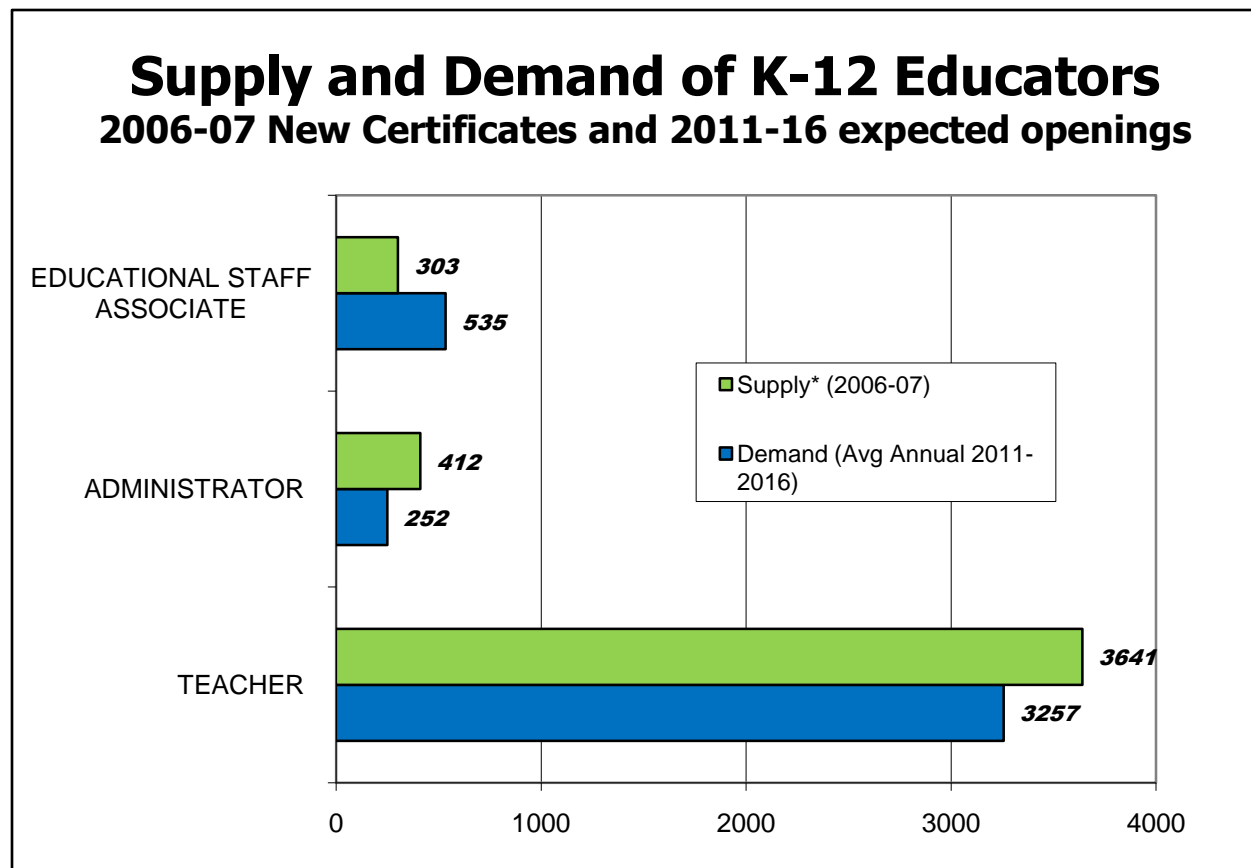
Supply and Demand of Engineers: 2006-07 Bachelor's and Graduate Degrees Awarded and 2011-2016 Average Annual Openings

- Industrial, environmental, civil, and aerospace engineering exhibit the greatest shortages through 2016.
- Current supply may be sufficient in mechanical, electrical, electronics, and computer engineering.
- Engineers share a common set of core competencies and in some cases may work in another specialty area.



Educators are Needed in Fields Critical to Student Success

- Shortages are evident for “Educational Staff Associates” including speech language pathologists, occupational and physical therapists, school psychologists, and school nurses
- Despite an adequate supply for all teachers in the aggregate, persistent and long standing shortages exist for special education, math, and science teachers.



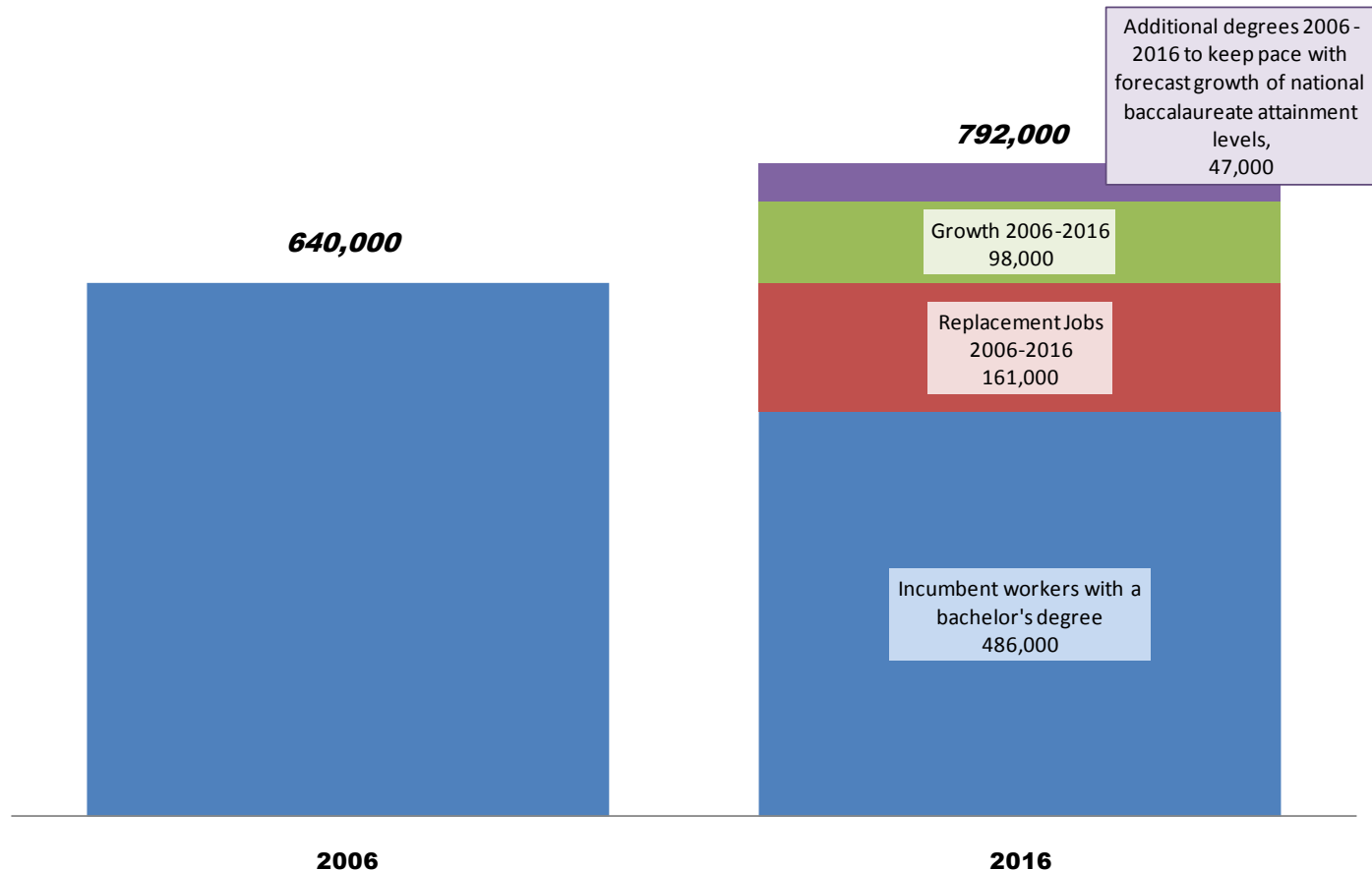
Source: June 2008 ESD Long Term Employment Forecast; OSPI - 2006-07 Certificates Issued.

In the future, we intend to improve the process through which this report is developed by:

- Establishing a technical advisory committee to advise on methodology and data sources.
 - Survey employers and review industry publications to validate results.
- Developing clearer plans on how the three agencies will incorporate the analysis results into program plans and accountability systems, and making greater use of the results to guide resource allocation decisions.

Employment Demand and Educational Attainment

Bachelor's Degrees in the Workforce 2006 and 2016 Forecast growth to meet Washington Workforce Needs and Keep Pace with Changes in National Attainment Levels



Sources: HECB Analysis of trend in educational attainment levels in the workforce based on 2000 Census, 2006 ACS, and 2007 ACS.
Forecast openings based on June 2008 Washington State Employment Forecast.

HECB Analysis of Degree Needs Related to Master Plan Goals

Education Level	Current degree and certificate production, 2006	Gap between current supply and forecast job demand in 2016	Additional degrees needed to account for further education and others not entering labor market	Additional degrees needed to increase WA education attainment to expected 2016 levels*	Resulting Sum Total Degrees in 2016	Degree Targets in Master Plan for 2018
Mid-level	27,338	4,013	1,653	3,409**	36,414	36,200
Baccalaureate	28,665	3,306	2,075	5,996	40,042	39,000
Graduate/ Professional	11,054	4,708	584	3,076	19,422	19,800

*Based on national trends in the growth of degree holders at each education level.

**Additional Associate Degrees only, other mid-level credentials not included.